

## A B S T R A C T

The present invention relates to an optical fiber (1') having at least one Bragg grating (11), the fiber comprising a core (2) surrounded successively by cladding (3) and a coating (4), said fiber being obtained by writing said grating in the core and/or the cladding directly through the coating which is made of a material containing an organic substance that is substantially transparent to the ultraviolet type radiation used for writing said grating, wherein the material of said coating contains an inorganic substance that is not miscible with the organic substance and that is distributed in substantially uniform manner in said material.